



Federal Communications Commission
Washington, D.C. 20554

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Small Entity Compliance Guide

Digital Television Distributed Transmission System Technologies

FCC 08-256
MB Docket No. 05-312

This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the new rules adopted in the above-referenced FCC rulemaking docket. This Guide is not intended to replace the rules, which provide the final authority in this context. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide might not apply in a particular situation based upon the circumstances, and the FCC retains the discretion to adopt approaches on a case-by-case basis that may differ from this Guide. Any decisions regarding a particular small entity will be based on the statute and regulations. Interested parties are free to file comments regarding this Guide and its application to a particular situation; the FCC will consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may revise this Guide without public notice to clarify or update its contents. Direct your comments and recommendations, or calls for further assistance, to the FCC's Consumer Center:

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Decision Document and Internet Link

- *Report and Order*, FCC 08-256, 23 FCC Rcd 16731 (2008); 73 Fed. Reg. 74047 (Dec. 5, 2008); http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-256A1.doc.

Background

- In November 2008, the Commission released a Report and Order adopting rules for the use of distributed transmission system (“DTS”) technologies in the digital television (“DTV”) service.
- Unlike conventional DTV broadcast stations that use a single transmitter, DTS technology would employ multiple synchronized transmitters spread around a station’s authorized service area. Each transmitter would broadcast the station’s DTV signal on the same channel. The DTS signals from the multiple transmitters would be synchronized, allowing DTV receivers to treat the multiple signals as reflections or ghosts that can be cancelled or combined by the receivers’ adaptive equalizer circuitry to produce a single signal.
- DTS will provide broadcasters with an important tool for providing the best possible signal coverage for their viewers. For some broadcasters that are changing channels or transmitting locations for their digital service, DTS may offer the best option for continuing to provide over-the-air service to current analog viewers, as well as for reaching viewers that have historically been unable to receive a good signal due to terrain or other interference.

Key Objectives of Proceeding

- Authorize and implement the DTS service.
- Provide broadcasters with another tool for improving their over-the-air service to viewers.

Entities Directly Affected by the Rule

- Television Broadcasting
- Class A TV, Low Power TV, TV Translator Stations

Key Compliance Requirements

- To accomplish the key objectives (above), the Commission established service rules for DTS operations in the Report and Order, including the following:
 - Defined a DTS service area as being comparable to that of a station’s single transmitter facility, and, to implement this approach, determined a station’s potential maximum authorized service area using the “Table of Distances” proposed in the DTS Notice.
 - Adopted a waiver policy to permit a station to use DTS if doing so will enable it to continue to serve its existing analog viewers who would otherwise lose service as a result of its transition to digital service. As part of implementing the DTV Delay Act, the Commission extended until December 14, 2009 the deadline for accepting such DTS waiver policy proposals.

- Required that DTS transmitters be located within either the DTV station's Table of Distances area or its authorized service area.
- Adopted rules to prohibit stations from using DTS to "cherry-pick" service.
- Afforded primary regulatory status to the multiple transmitters used in a DTS network within the areas that such DTS transmitters are authorized to serve.
- Applied to DTS stations the Part 73 licensing and technical rules that apply to DTV single-transmitter stations.
- Evaluated DTS proposals using the same interference standard adopted for single transmitter stations, and adopted the root-sum-square ("RSS") method of calculating interference from multiple DTS transmitters.
- Permitted a licensee of multiple digital Class A TV, digital LPTV, and/or digital TV translator stations to operate through interconnected single-frequency DTS networks, but will separately license each station in such a network.
- Approved on an experimental basis the use of DTS technologies by a single digital Class A TV, digital LPTV or digital TV translator station to provide service within its authorized service area. (*See* Class A DTS rule 47 C.F.R. § 73.6023.)
- DTV broadcast stations that want to operate their DTV facility using DTS technologies must apply for such facilities using FCC Form 301 (for commercial stations) or FCC Form 340 (for noncommercial stations) and must comply with Section 73.626, the rule adopted by the Commission to govern use of DTS; *see* 47 C.F.R. § 73.626.

DTS Licensing:

- DTV stations that wish to apply to use DTS technologies must use FCC Forms 301 and 340, which have been modified to accommodate the use of DTS. DTS transmitters will not be separately licensed, but will be part of a linked group that will be covered by one construction permit and license. Stations must request authority to construct DTS facilities by filing a single application that includes either (1) a main transmitter and one or more additional transmitters that will collectively use the DTS technology, or (2) two or more smaller DTS transmitters.
- Electronic Filing Required: FCC Forms 301 and 340 must be filed electronically using the Commission's Consolidated Database System ("CDBS") Electronic Filing System via the Internet from the Media Bureau's Web site at: <http://www.fcc.gov/mb/cdb.html> or http://fjallfoss.fcc.gov/prod/cdb/forms/prod/cdb_ef.htm.